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LESTER S. KING, Medical Thinking. A historical preface, Princeton University Press, 1982, 8vo, pp. x, 336, £13.80.

This is an interesting and a very readable book, which no doubt owes some of its interest to the author, in addition to having practised pathology, having studied philosophy before his medical studies, and having maintained a life-long interest in medical history. The leitmotiv of the book can be found in three sentences on p. 10 – "An enormous literature recounts the triumphs of modern medicine, and in so doing stresses the aspects of medicine that have changed over the years. Such an emphasis, however, completely distorts the nature of medical science and medical practice. This distortion manifests itself by creating sharp discontinuities and sudden breaks with the past." Dr King ascribes a contrary view to Lewis Thomas, quoting from him a passage containing the sentence, "It was discovered, sometime in the 1830s, that the greater part of medicine was nonsense."

Now, it cannot be gainsaid that Lester King is right in arguing that physicians in past centuries were every bit as intelligent and devoted as the physicians of today; that it remains important and valuable to study what they have left behind; and that it is the solutions to medical problems which change, not the problems themselves. On the other hand, I think he seriously underestimates the degree to which thought processes themselves may be modified, and hopefully enhanced, by the framework of established fact and probable hypothesis within which they operate – Karl Popper's "third world". Reasoning from faulty premisses may be coruscatingly brilliant, but it is less likely to be effective; and visible good outcomes must be a stimul' is to intellectual effort in particular directions.

In concentrating on the main strand of argument, I have done less than justice to thought-provoking observations on the nature of disease and of the diagnostic process. The author is a master of graphic illustration, and his style is gracious. Perhaps I may illustrate this by a final quotation, which also conveys an important message: "[Scientific medicine] lies not in formidable apparatus nor the myriads of available tests, nor in overflowing libraries, but in that still small voice that I call critical judgment. This voice asks the important questions: 'Do you see a pattern clearly? How good is your evidence? How sound is your reasoning? Can you support your inferences with the means at your disposal? What are the alternatives? What hangs on your decision?' This voice, I believe, goes to the heart of scientific medicine. It has been speaking throughout the ages, but physicians do not always listen. And those who do not listen are empirics, regardless of the technical facilities at their command."

Douglas Black Wellcome Institute

OLIVIER FAURE, Genèse de l'hôpital moderne. Les hospices civils de Lyon de 1802 à 1845, Lyons, Presses Universitaires de Lyon; Paris, Editions du CNRS, 1982, 8vo, pp. 269, Fr. 90.00 (paperback).

In a variety of ways over recent years, the Société Française d'Histoire des Hôpitaux has helped to rekindle interest in French hospital history. That Olivier Faure's Genèse de l'hôpital moderne comes endowed with the society's Grand Prix Emile Bonnet is sufficient guarantee of the work's scholarship and solidity. It is particularly attractive also in that it deals with a period of hospital history relatively neglected by recent scholarship. Drawing extensively on the superlative hospital archives of Lyons – though neglecting, somewhat surprisingly, the important F 15 (Hospices et secours) series in the Archives Nationales – Faure offers a far more thorough-going analysis than has appeared hitherto of the functions and the life of the hospitals of provincial France in the post-Revolutionary era.

Down to 1830, Faure argues, the traditional mould of the hospital in Lyons held fast. Directed by an administrative board composed of a self-regarding and self-perpetuating oligarchy of local notables, relying heavily on the services of a semi-regular community of nurses, concerned to open its doors to all forms of distress, the hospitals were less the *machines à guérir* wished for by hospital reformers since the late eighteenth century, than *asiles* which, like their Ancien Régime forebears, assured "tâches d'accueil, de gardiennage, de contrôle sociale, et non pas du tout, ou presque, des soins médicaux" (p. 220). From 1830, however, we see the beginnings of a

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decisive break away from the hospitals' traditional orientation. The reactionary old clique of administrators was overturned, and new faces entered hospital administration, bringing with them a more liberal approach and a more receptive attitude to medical innovation. The ablebodied, incurables, and malingerers were more carefully weeded out, in an effort to make hospital populations truly "case médicaux" rather than merely "cas sociaux". And real improvements were made in medical services (closer medical supervision, reform of the intern system, the modernization of hospital pharmacies, the use of scientific instruments, a greater openness to clinical instruction, etc.) and, consequently, in general standards of internal hygiene and conditions (water supplies, floor cleaning, heating, etc.).

The actual hospitals whose history Faure here recreates remain somewhat shadowy – the English reader at least will regret not having the different types of institution (Hôtel-Dieu, Charité, Antiquaille, . . .) more clearly delineated. Conversely, however, the character of life within the institutions comes across particularly strikingly. Close analysis of the whole range of archival riches available to the historian of hospitals reveals the institutions not at all as the Foucaultesque spaces for the refinement of techniques of social discipline and dressage imagined by some historians. Rather, they emerge as sprawling, dirty, complex, overcrowded, unkempt, noisy, and altogether more human institutions. Even if by mid-century the idea of a machine à guérir had triumphed in Lyons "dans les esprits", the day still seemed far off when it would be achieved "dans les faits". The medicalization of the provincial French hospital evidently still had far to go.

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G. N. CANTOR and M. J. S. HODGE (editors), Conceptions of ether. Studies in the history of ether theories 1840–1900, Cambridge University Press, 1981, 8vo, pp. x, 351, £30.00.

This book might appropriately have been entitled 'Conceptions of the historiography of the ether' embracing, as it does, a wide range of viewpoints on the "proper" concerns of the historian of ether theories. J. L. Heilbron, writing on 'The electrical field before Faraday', eschews "alchemical" history which assumes that "the innovative scientist acquires his basic and guiding conceptions from general philosophy and metaphysics" and confines himself to "the first task of the intellectual historian, reconstructing the public state of knowledge". This approach is generally adhered to (despite occasional "lapses") by J. Z. Buchwald ('The quantitative ether in the first half of the nineteenth century'), D. M. Siegel ('Thomson, Maxwell and the universal ether in Victorian physics'), and Howard Stein (""Subtler forms of matter" in the period following Maxwell'), who present detailed accounts of mathematical and physical models of ether developed in the nineteenth century and the scientific problems that gave rise to them. Other contributors have, however, engaged unashamedly in "alchemical" history. M. Norton Wise, writing on 'German concepts of force, energy, and the electromagnetic ether: 1845-1880', investigates the influence of German Idealist philosophy and Naturphilosophie on nineteenth-century German conceptions of the ether. G. N. Cantor devotes his contribution to 'The theological significance of ethers', and reasonably suggests "a dynamic interaction between scientific theorising and theology". J. R. R. Christie argues that the ether in the eighteenth century was a cultural phenomenon that is best interpreted by examining the various uses (social, political, theological, scientific, . . .) to which the ether was put. And Roger K. French is inevitably drawn into considering the metaphysical problems surrounding the role of subtle fluids in physiology.

There are significant substantive as well as methodological differences. Larry Laudan's ('The medium and its message: a study of some philosophical controversies about ether') strange assertion that ethers were rejected in Scotland is at odds with Christie's essay (largely concerned with the ether theories of Scottish chemists) and P. M. Heimann's discussion ('Ether and imponderables') of the ether theories of, amongst others, Cullen, Black, and Hutton.

Wisely, the editors did not fall into the trap of trying to impose a superficial unity on such diversity. Instead, their lucid introduction provides an overview of 'Major themes in the development of ether theories from the ancients to 1900', which draws on, rather than attempts